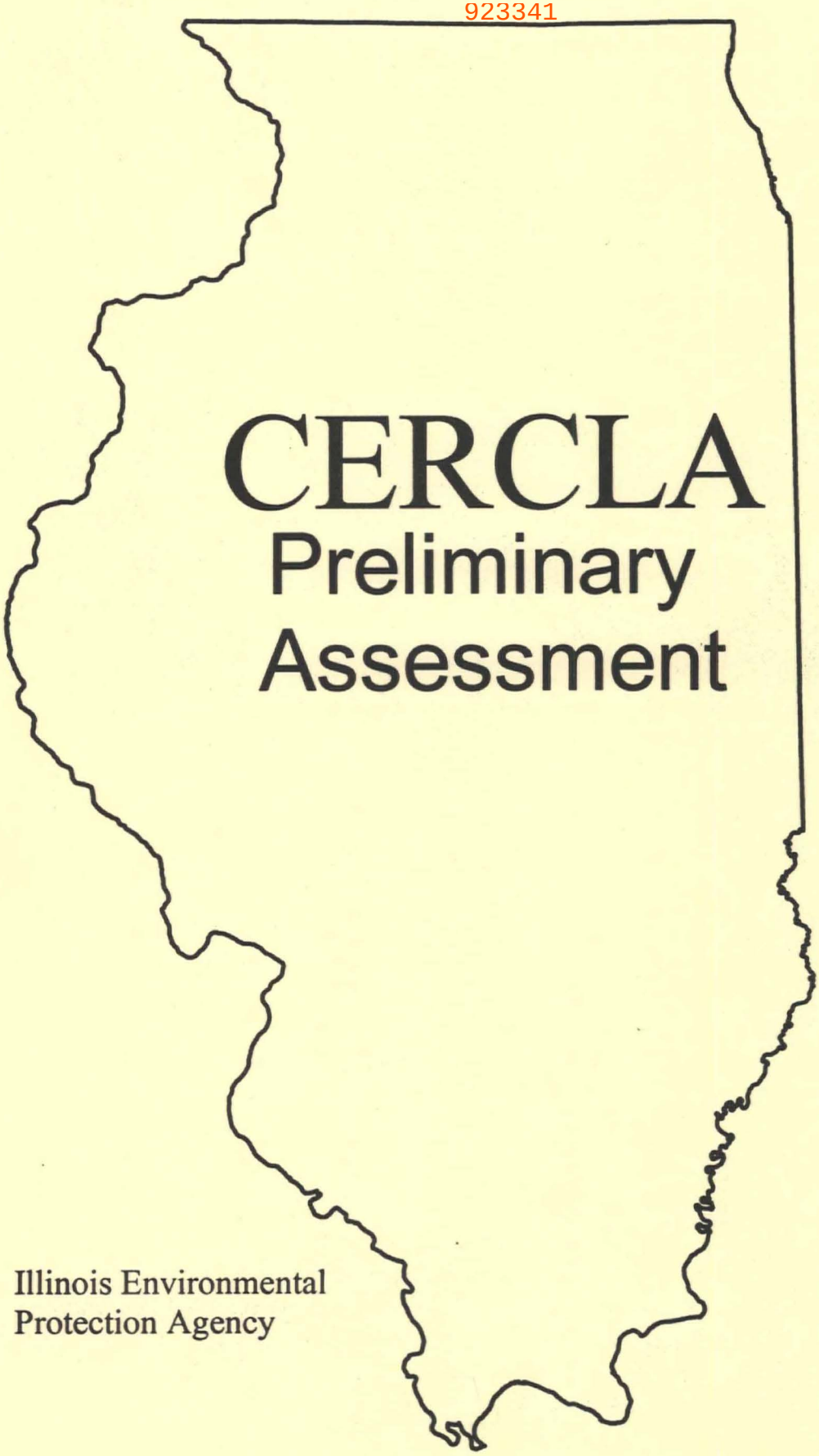
L0311110014 -- Cook Co.
WELTMEYER AUTO
ILD002093144
HRS/SF

(Volume 1 of 1)

CERCLA
Preliminary Assessment



Illinois Environmental
Protection Agency

PRELIMINARY ASSESSMENT REPORT

for:

WELTMEYER AUTO, INC.
HARVEY, ILLINOIS

ILD 002093144

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
FEDERAL SITE REMEDIATION SECTION
OFFICE OF SITE EVALUATION

SEPTEMBER 19, 2003

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1.0 INTRODUCTION

INTRODUCTION

On October 18, 2002, the Illinois Environmental Protection Agency's (IEPA) Office of Site Evaluation Program was tasked by the U.S. Environmental Protection Agency (USEPA) Region V to conduct a Preliminary Assessment (PA) of the Weltmeyer Auto, Inc (ILD002093144) site located in Harvey, Illinois. The PA was performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) commonly known as Superfund.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300) requires a Preliminary Assessment be performed on all sites entered into the Comprehensive Environmental Response, Compensation and Liability System (CERCLIS). If, through the initial investigative phase, the determination is made that the site is National Priority List (NPL) caliber, the site will progress through the Superfund process. A sampling plan to accommodate removal and site assessment needs, as well as initial remedial needs will be developed during future investigations. The need for site sampling will be based on a reasonable understanding of the site in order to assure that adequate data will be collected for the removal assessment and the preparation of the Hazard Ranking System (HRS) score. The need for the initial sampling for the remedial investigation will also be considered. Upon completion of the data gathering, there will be a determination of whether the site should be forwarded within the Superfund process, either through the remedial or removal programs. Based on the preliminary HRS score and removal program information, the site will then either be designated as No Further Action (NFA), or carried forward as an NPL listing candidate.

Weltmeyer Auto, Inc. (ILD002093144) was initially investigated by the IEPA in response to a reported acid spill from a tanker on the subject property on October 22, 1997. On October 23, 1997, emergency responders from USEPA, IEPA, and Superfund Technical Assessment and Response Team (START) met on site with officials from the Harvey Police and Fire Departments to determine the course of action and site security. All parties recommended that further investigation of the property take place due to the current spill and possible past hazardous waste disposal practices. As a result of this recommendation, Weltmeyer Auto, Inc. was placed on the Comprehensive Environmental Resource Compensation and Liability Inventory System (CERCLIS) list on October 22, 1997 as a site discovery. The site was placed on CERCLIS in response to concerns that the October 22, 1997 acid spill and past site activities may have resulted in other releases of chemical substances onto the ground around the facility, and thereby entering the environment. The substances had the potential to enter the environment through four environmental pathways; groundwater, surface water, soil exposure, and air releases potentially endangering the life and health of wildlife and human populations. The potential for contamination exists, both, onsite and at nearby off-site locations. This potential stems from the following factors: The company operated from 1973 to 1989 as a truck and auto repair and service garage; stored and transported special wastes; quantity of waste is unknown; unknown waste disposal practices; presence of stains on the ground; residential areas are within two hundred feet of the subject property.

The Preliminary Assessment is being conducted to collect information sufficient to support a decision regarding the need for further action under CERCLA. The assessment will investigate and discuss the type of site, operational history, the four environmental pathways (groundwater

migration, surface water migration, soil exposure and air migration), and the environmental hazards associated with the site. No Resource Conservation and Recovery Act (RCRA) implications or actions are associated with this site at the present time. However, while the Weltmeyer Auto business was in operation, the owner applied for and received special waste hauling permits for five tanker trailers and one flatbed trailer. The property was also subject to RCRA corrective action authorities while removal of hazardous wastes were completed during the October 22 through November 17, 1997 removal action.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

Weltmeyer Auto Inc. is an inactive truck and auto repair garage located at 14752 Spaulding Avenue in the central-north portion of Harvey, Illinois, one block south and east of the intersection of Sibley Boulevard (147th) and Wood Street in Thornton Township, Cook County (see Figures 1, 2 & 3). Company operations consisted of repair and servicing of trucks and automobiles and transporting liquid special wastes to various types of treatment facilities by means of tanker truck or 55-gallon drums on a flatbed trailer. The company structure, driveway and parking areas occupy a triangular shaped property on approximately 1 acre of land at the mentioned location. The site specific location of the Weltmeyer Auto property is described generally as follows: E1/2 of the NW1/4 & S1/2 of the NE1/4 of the NE1/4 of the SE1/4 of Section 7, T.36N-R.14E. (Figure 2). The company is situated in an urban setting within the City of Harvey. Bordering the property on the north and northeast is the Spaulding Avenue beyond which are the Grand Trunk Western railroad tracks, on the south is 148th Street across which is an in ground, covered, concrete reservoir and residential areas, on the southeast by an alley, and on the west is Page Avenue beyond which is residential areas.

The site consists of a large, abandoned, brick building with several overhead doors surrounded by gravel and asphalt driveways and parking areas. The terrain of the property is flat and partially vegetated near perimeter areas. Vegetated areas consist of various types and sizes of grasses, weeds, and trees. Grass and weeds associated with the vegetated areas are sparse and mostly along the southern portion of the property. Trees are located at a few spots around the property's perimeter.

The Weltmeyer Auto property is situated in close proximity to residential neighborhoods, and is within two hundred feet of the closest residential dwelling. A residence is located approximately 100 feet west of the site structure. Within four miles of the property (Appendix A), land use consists primarily of residential and manufacturing/light industrial with some commercial/retail also scattered throughout. At least five grade schools are within 3700 feet of the property, St. Susanna School being the closest at 1500 feet southwest of Weltmeyer. Thornton High School is approximately 4000 feet east of Weltmeyer.

The property can be accessed by vehicle and pedestrian traffic from all sides via driveways, street or alley. There are no fences preventing access to the property.

The surface water runoff route for this property consists of the runoff to the City of Harvey sewer system.

2.2 HISTORY

Weltmeyer Auto, Inc. began operating in 1973 as a truck and automotive repair and service facility. The company went out of business in 1989. In addition to operating the repair shop, the company purchased five 5,000 gallon tank trailers and one flat bed trailer to transport bulk liquid special waste and drummed special waste. It is not known when transport of special waste began, however special waste hauling permits were issued to Weltmeyer by IEPA in May and July 1988. [redacted], now deceased, owned the property from 1973 to 1992 when it was purchased at a tax sale. However, [redacted] remained a tenant at the property until late August 1997, at which time he was forcibly evicted for failure to pay rent since November 1996. According to documents held by the former owners son and a title search conducted by Dynamac

Corporation for USEPA, the subject property, formerly owned by Norman Weltmeyer, was purchased through a tax sale by S.T.C.R. Company and/or a company identified as American Indemncorp. S.T.C.R.'s business is mainly real estate management. Information contained in USEPA files indicate that hazardous substances transported in the tankers may have been generated by Microzinc Company which manufactured fertilizers and soaps. On October 22, 1997 a spill occurred on the property due to local metal scrappers cutting drain holes in one of four tanker trailers remaining at the abandoned facility. Approximately 1000 gallons of acid spilled from the tanker, which was on its side, onto the soil beneath. A local resident witnessed the incident and notified the City of Harvey and the IEPA. IEPA then requested assistance from USEPA. Subsequent field testing and laboratory analysis of material in the tanker trailers and spill area revealed it as hydrochloric acid. On October 23, 1997 a removal action was initiated. The removal action was completed and the site vacated on November 17,1997. As of this writing the current owner of the property remains unclear. Due to the property being vacant the building and grounds have remained in disrepair.

2.3 REGULATORY STATUS

Based upon available file information the Weltmeyer Auto property was subject to (RCRA) corrective action authorities during the time that special waste hauling was conducted. IEPA issued special waste hauling permits to Weltmeyer Auto in May and July 1988 for five tanker trailers and one flatbed trailer. In May 1989 IEPA issued a notice of permit expiration to Weltmeyer Auto. The permits were never reapplied for. The property was also subject to RCRA corrective action authorities while removal of hazardous wastes were completed during

the October 22 through November 17, 1997 removal action. Information currently available does not indicate that the site is under the authority of the Atomic Energy Act (AEA), Uranium Mine Tailings Action (UMTRCA), or the Federal Insecticide Fungicide or Rodenticide Act (FIFRA).

3.0 PRELIMINARY ASSESSMENT ACTIVITIES

3.1 INTRODUCTION

This section contains information gathered to facilitate preparation of the formal CERCLA Preliminary Assessment. Specific activities included an internal file search, field reconnaissance inspection, site representative interview and review of the removal action completed at the site.

3.2 RECONNAISSANCE ACTIVITIES

A CERCLA pre-remedial site reconnaissance was conducted on September 3, 2003, by personnel of the Office of Site Evaluation (OSE) of the Illinois Environmental Protection Agency (IEPA). The site was observed to be flat, with areas overgrown with vegetation and entirely unfenced. The site is open to the public and the building is easily accessible. Miscellaneous garbage and debris, various piles of mixed wastes (metal, plastic, cardboard, etc.), was noticed on the soil surface outside of the building. Because site activities ceased in 1989 the building and grounds have fallen into disrepair. The building is rectangular, measuring approximately 400 feet long by 100 feet wide constructed of brick side walls and a metal roof. It is divided into three main sections, an east bay, center bay, and west bay. The east bay and center bay have three overhead doors each, the west bay has two overhead doors that area slightly wider than the doors in the other two bays. Structural integrity of the building is questionable. Grout has deteriorated around much of the brick exterior and a large portion of the roof in the west bay is severely deteriorated or has already collapsed. Inside the structure, most of its facilities have been demolished, vandalized, or scavenged. Most of the electrical wiring has been stripped and metal parts removed for salvage, debris associated with former automotive repair operations is

scattered around the floor throughout the building, and there is evidence of transient occupation. Due to the condition of the building it has been condemned by City of Harvey and is unoccupied. Additional observations conducted on the property around the buildings revealed that a few areas contained what appeared to be stained soil. No soil disturbances such as lagoons, pits, or trenches were noted during the reconnaissance. Investigations of past activity at the property did not reveal whether any of these features have ever existed on site. The drainage ditch along the railroad tracks, just northeast of Spaulding Avenue, northeast of the northeast perimeter of the property was noted to be moderately vegetated with, grass, weeds, small bushes and small trees. No wetland plants appeared to be present at this location. The reconnaissance continued to the southern portion of the property, south of the facility's buildings. This portion of the property contains open ground, both grass covered and gravel covered, with a common property boundary with two private residences located south of the property. No odors, stains or visual abnormalities were noted on this portion of the property.

Soil on site consists of medium brown to tan, sandy silt and silty-sandy clay covering the entire site, with gravel, asphalt or concrete utilized as roadway material at various locations. Site slope is basically imperceptible toward the northeast. Slope is only slightly detectable for the majority of the site with various areas observed to be susceptible to ponding. In these areas ponded water either percolates into the soil or evaporates. Site surface drainage follows a northeastern trend as a whole with only minor amounts of runoff flowing to the south and west, onto adjacent property. No evidence of an on site storm drain system was apparent. Beyond the property's north and northeastern perimeter (Spaulding Avenue) a forty to fifty foot wide area of gravel, grass and trees exist. A slight depression exists between this area and the ten foot high

Grand Trunk and Western Rail Road Tracks embankment, creating a small drainage ditch. This gravel area receives some runoff from the northeast portion of the property, which tends to pool and either evaporate or percolate into the soil. However, most site runoff enters city storm sewers on Spaulding Avenue.

The nearest residential property was noted to exist immediately west, adjacent to the deteriorated Weltmeyer garage structure. Additional residential areas exist in all directions around the facility. Surface topography is relatively flat on and immediately around the site. Beyond the immediate site area the topography becomes gently rolling approximately three miles south and west of the Weltmeyer property. Land use within the four mile radius of the site is predominantly residential within 1 mile, a combination of 85% residential and 15% industrial/commercial within the remainder of the four mile radius north, west and south, and a combination of 60% residential and 40% industrial/commercial southeast and east.

3.3 SITE REPRESENTATIVE INTERVIEW

A site representative for Weltmeyer Auto was not available during the time of the IEPA site reconnaissance. A discussion with the former owners son, regarding the property, was held over the telephone prior to the IEPA reconnaissance. The conversation resulted in some of the information presented in Section 2.2 of this report.

3.4 REMOVAL ACTION ACTIVITIES

On October 22, 1997 an acid spill from a tanker on the east side of the Weltmeyer property was reported to the IEPA. The tanker was apparently being salvaged for its metal which necessitated

holes being cut into it to drain the acid. On October 23, 1997, emergency response personnel from USEPA, IEPA, and START assembled at the site with officials from the City of Harvey Police and Fire Departments (Reference Appendix C, Preliminary Assessment Equivalent Report). A site reconnaissance was conducted to familiarize all parties with the property and the buildings interior. Air monitoring of the site was conducted around the spill area, the four tanker trailers on and adjacent to the property, and inside the building. Results of air monitoring indicated no levels above background for volatile organic gases, explosive gases, oxygen, carbon monoxide, or hydrogen sulfide. At the spill location, east of the building, the acid had pooled on the ground adjacent to the tanker (which was on its side), reacted with the soil, and due to a slight surface slope away from the tanker trailer, flowed under a neighboring sheet metal storage trailer. The surface area impacted by the acid spill was approximately 30 feet in diameter. Also noted outside of the building were two 55-gallon steel drums containing paint. Inside the building several 55-gallon steel drums, approximately 30 small metal and plastic containers, and several bag of green colored solid material were present. Many of the small containers contained paint. Field tests indicated that the tankers contented hydrochloric acid, as did the soil in the spill area. Field tests on the contents of two drums inside the building indicated flammable material and low pH. Samples were collected for laboratory analysis from three of the four tankers (the fourth contained a small amount of asphalt), one soil sample from the spill area, two drum samples and one storage bag from inside the building. All samples were analyzed for pH and total metals. One of the two drum samples was also analyzed for total volatile organics and flashpoint. Analytical results indicated that the liquid in the tankers, the soil in the spill area, the contents of the bag of green material, and one of the drums were acids. The contents of the other

drum was considered ignitable under RCRA. Due to the threat to human health and the environment from these waste materials USEPA determined that a immediate removal action at the site was warranted. On October 24, 1997 the USEPA's Emergency Response Cleanup Service (ERCS) contractor mobilized for a removal action. During the October 23, 1997 through November 17, 1997 removal action approximately 10 cubic yards of soil was excavated to a depth of four inches below surface grade and removed from the spill area. Approximately 12,000 gallons of liquid hydrochloric acid and 3,300 gallons of hydrochloric acid sludge was removed from the tankers and transported off site for treatment and disposal. The tankers were then cut into six foot by eight foot pieces, placed into 20 cubic yard rolloff boxes and removed from the site. The bags of solid material located inside the garage were determined to be sulfamic acid. The bags were placed into four 1 cubic yard boxes for off-site disposal. The sampled drums were placed into overpacks along with two lab packs of smaller containers and removed for off-site disposal. All USEPA site work was completed on November 17, 1997. No further action from USEPA's Emergency Removal Branch is planned at the site.

For additional information on the removal action at Weltmeyer Auto please refer to Appendix C, Preliminary Assessment Equivalent Report – Weltmeyer Auto Site, a.k.a. Acid Spill Site, September 10, 1997.

4.0 CURRENT SITE CONDITIONS

4.1 POTENTIAL CONTAMINATED SOIL (ON WELTMEYER AUTO PROPERTY)

During the time period from October 23, 1997 – November 17, 1997, seven field tests were performed on various media, as stated in Section 3.4 of this report; seven associated samples were collected from the same media for the purpose of laboratory verification of field tests; and a removal action was completed based on results (RCRA hazardous waste) of the laboratory analysis of the samples (Appendix C). The removal action not only eliminated the acid contaminated soil but also its source (three 5,000 -gallon tanker trailers) from the site. The removal action also eliminated other potential sources of contamination by removing the RCRA hazardous drums, bags of sulfamic acid and the numerous small containers of paint and paint waste littered throughout the building. Even though all RCRA hazardous wastes were removed from the site, potential for other hazardous substances to be present on site may remain due to the nature of the facility's auto and truck repair and service operation. However there has been no evidence found to support this suggestion

5.0 MIGRATION PATHWAYS

5.1 GROUNDWATER

The soil survey for Cook County defines the entire area of and around the property as urban land. Urban land consists of built up and/or filled areas and deep, level, poorly drained soils that have a silty, loamy, clayey subsoil. In this instance portions of the property being evaluated were covered by gravel (driveway areas, etc.) and concrete foundations and floors of site structures. The property surface generally consists of silty loam material which is estimated to be approximately one foot thick throughout the site. The site lies within an area underlain by Pleistocene Age glacial/lacustrine deposits. The natural surficial geology beneath the site is composed of quiet water and near shore sediments deposited by former Lake Chicago. These sediments are dominated by well bedded silt and some clay. These sediments are identified as the Carmi Member of the Equality Formation. The Carmi Member is associated with the Wisconsinan Stage of glaciation. Beneath the Carmi Member (clay with silt and sand lenses) is the Wadsworth Member, a clayey glacial till which extends to the bedrock surface. The bedrock in the vicinity of the site is a Niagaran group dolomitic limestone of Silurian Age. The top of the bedrock is estimated to be present at a depth of approximately 65 feet below ground surface.

Beneath the surface soil is natural, soft to very stiff clay and loose to medium dense silt and clayey silt with some intermittent stringers of fine to coarse sand and some fine gravel, which represent lake bottom deposits. These deposits are approximately 15 to 30 feet thick in the area near the property. Beneath the Carmi Member is the Wadsworth Member consisting of very stiff to hard silty or sandy clay and hardpan soils. These clay strata are typically interbedded with silt and sand layers or lenses. The Wadsworth Till is approximately 45 to 55 feet thick beneath

the property. Groundwater occurrences within the Pleistocene deposits (Wadsworth Till) of the area are typically observed within localized sand and/or silt lenses. Due to poor yield and quality, the water is generally not considered for potable use. There can be adequate groundwater reserves within the Silurian (System) dolomite and it is considered to be the primary aquifer in the region, however, it is not widely used in the immediate area as drinking water is provided by the City of Chicago with water drawn from Lake Michigan. The Illinois State Geological Survey (ISGS) and the Illinois State Water Survey (ISWS), do however, indicate that approximately 97 private drinking water wells exist within a four mile radius around the Weltmeyer property. ISGS and ISWS information indicates that static water levels in wells screened in the Wadsworth Till within four miles of the property range from 35 to 65 feet below ground surface in wells 90 – 100 feet deep. Some wells within four miles of the property are screened in or draw water from immediately beneath the Wadsworth Till in the upper portions of the Niagaran Series formation (dolomite) of the Silurian System. These bedrock wells have been recorded between 110 feet to 250 feet in depth. Groundwater flow in this particular portion of the bedrock aquifer trends north-northeast following the north-northeast dip of the beds of dolomite of approximately 25 feet per mile as indicated by the Illinois State Geological Survey Bulletin 73 Plate 1.

After reviewing the geology, groundwater usage of the area, and the Groundwater Quality Standards (35 IL Adm. Code Part 620), the groundwater beneath this property can be classified as Class II groundwater. The determination was based on the following: no potable water supply wells are within the minimum setback zone, no sandstone greater that 10 feet thick or fractured carbonate greater than 15 feet thick exist, and 99% of all water within the Harvey distribution

area is supplied by the City of Chicago with water from Lake Michigan. Therefore, the groundwater classification will be in accordance with the Class II groundwater standards in 35 IL.Adm. Code Part 620.

There are approximately 241 non-community, private and other groundwater wells and/or distribution systems located within a four mile radius of Weltmeyer Auto, Inc. Both, the sand and gravel deposits in the unconsolidated glacial drift above bedrock and the Silurian Dolomite aquifers are utilized for drinking water and general water supplies in southern Cook County. Illinois State Water Survey (ISWS) records indicate that there are no public drinking water systems within the four mile radius of the Weltmeyer property. Approximately 97 private drinking water wells, serving 264 persons, exist within the four mile radius of the site with approximately 15 wells being from within the Harvey Corporate Boundary.

The closest private well to the site uses the sand and gravel aquifer of concern and is, according to ISWS well logs, 4970 feet south-southwest of the facility. However, any potential source of groundwater contamination at the site has been removed during the removal action.

Based on information obtained and presented above, the Glacial Drift and Silurian Dolomite aquifers are considered to be interconnected and the aquifers of concern in the area surrounding the site. Since the Maquoketa Group is a confining layer beneath the Silurian Dolomite the Cambrian-Ordovician aquifer would not be considered a concern for potential contaminant intrusion. Groundwater in the aquifers of concern has been encountered at depths between approximately 50 to 90 feet. Groundwater flow direction in the glacial drift aquifer has not been determined at this time.

Number of wells and users within 4-miles of Weltmeyer Auto Inc.

Distance	Public Well Population	Private Well Population
0 - 1/4 mile	0	0
1/4 - 1/2 mile	0	0
1/2 - 1 mile	1	3
1 - 2 miles	30	82
2 - 3 miles	31	84
3 - 4 miles	35	95

The population was calculated using USGS topographic maps for the area surrounding the facility and 2.72 people per household in Cook County, as established by the U.S. Census Bureau (2000)

5.2 SURFACE WATER

Surface water runoff from the Weltmeyer Auto, Inc. facility, as indicated previously tends to flow northeast toward Spaulding Avenue and into storm drains in the street curbs. Some runoff has the potential to flow across Spaulding Ave. and into the railroad ditch. Also, a small portion of facility runoff flows south toward 148th Street and west toward Page Avenue and into street curb drains off of facility property. Drainage patterns of the area viewed on topographic maps and aerial photographs were visually verified during the site reconnaissance. Drainage from the site flows via overland flow toward the street drains and the railroad ditch. Beyond the property boundaries, flow entering the railroad ditch ponds and moisture either evaporates or infiltrates into the soil. Runoff into the street drains is directed into the Harvey sewer system.

The nearest surface water body to the Weltmeyer property is the Little Calumet River, located approximately 0.8 miles northeast. Because site run off does not flow to an intermittent or perennial stream or other water body there is no probable point of entry (PPE) to surface water. According to the National Wetland Inventory Maps the nearest wetland to the Weltmeyer facility is located approximately 5680 feet southwest. The wetlands exist as: palustrine, forested/scrub-shrub, broad-leaved deciduous, temporarily flooded, partially drained/ditched environment (Figure 5).

5.3 SOIL EXPOSURE PATHWAY

Weltmeyer Auto Inc., was brought to the attention of the IEPA due to the subject acid spill on the property. Subsequently during further investigation of the facility, attention was also drawn to the improper storage and handling of other special and hazardous wastes. Prior to this the IEPA had not been involved with the company. There are no other known complaints of dumping, spills or incidents resulting in contamination of the soil and no visual signs of any anomalies. There have been no reports or complaints of foul and/or noxious odors emanating from the facility.

All RCRA hazardous wastes that spilled on the soil or were stored on the Weltmeyer property have been removed, thereby eliminating contaminants from the soil exposure pathway. Due to the facility being entirely unfenced, access to the facility and illegal salvaging by trespassers is possible.

Nearby population within one mile of the site

Distance	Population
On-site	10
0 - 1/4 mile	3701
1/4 – 1/2 mile	9353
1/2 - 1 mile	5552

The population was calculated using USGS topographic maps for the area surrounding the facility and 2.72 people per household in Cook County, as established by the U.S. Census Bureau (2000).

5.4 AIR ROUTE

During the September 3, 2003 reconnaissance a Foxboro Toxic Vapor Analyzer (TVA) was utilized to screen ambient air around the facility, air in the breathing zone, and air in the building. There are no records, reports or complaints on file of air releases from the facility. The potential for contaminated particulates to be carried off-site is currently low, as mitigative measures were implemented to avoid this in the form of the removal action completed between October 23, 1997 and November 17, 1997. Results of air monitoring during the initial response indicated no levels above background for volatile organic gases, explosive gases, oxygen, carbon monoxide, or hydrogen sulfide. All contaminants with the potential to become airborne have been removed from the property.

Within a 4-mile radius of the site the population is calculated to be approximately 82,200 persons. The nearest individual and regularly occupied building is west of the Weltmeyer Auto property. Approximately 4 persons occupy the residence at this location. The approximate

number of individuals potentially exposed to air-borne particulates are listed below. There are no schools or daycare facilities on-site or within 200 feet of the site.

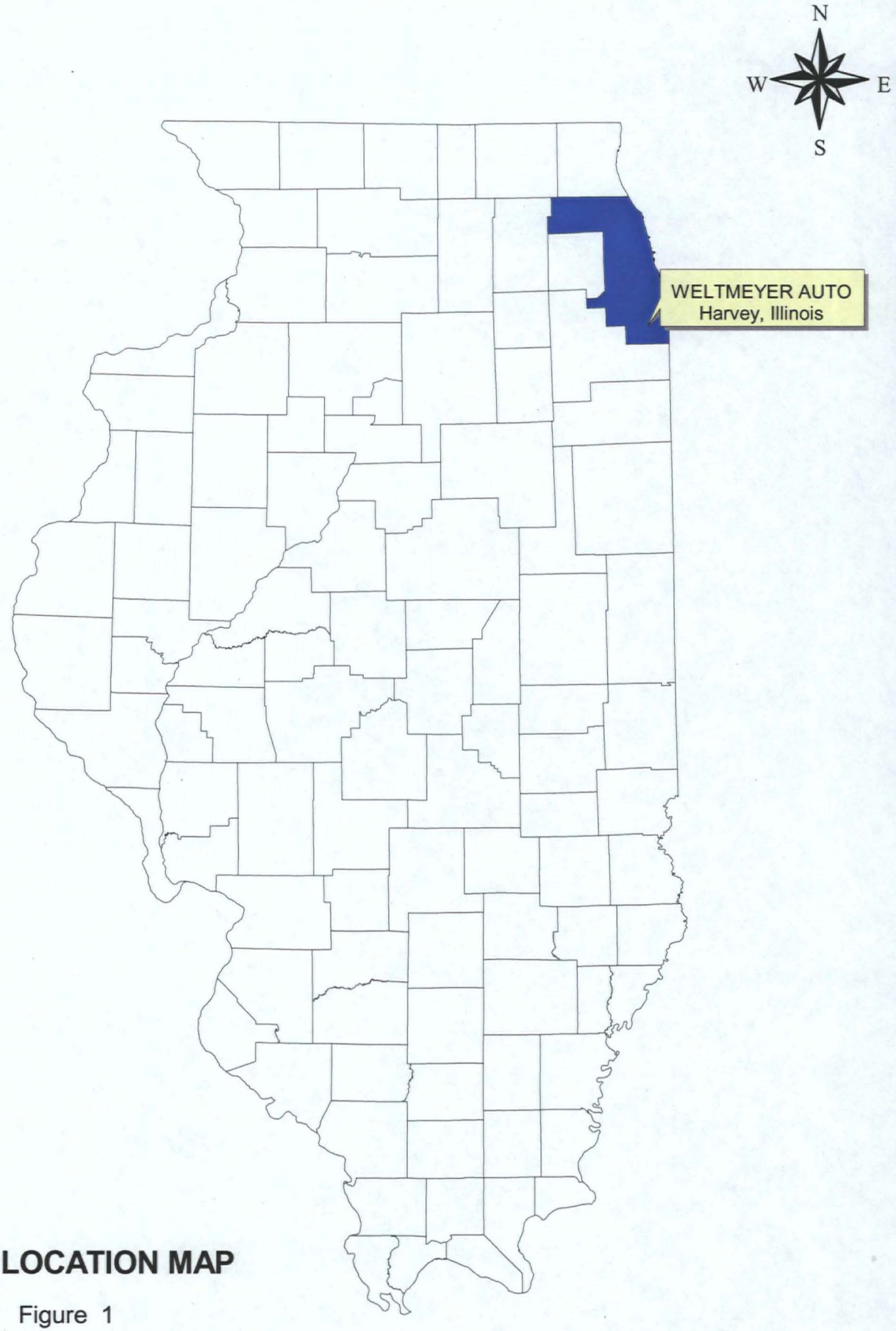
Sensitive environments within four miles of Weltmeyer consist of wetlands, some of which have been described in section 5.2 of this report.

Individuals potentially exposed to air-borne contaminants

Distance	Population
On-site	10
0 - 1/4 mile	462
1/4 - 1/2 mile	1987
1/2 - 1 mile	4620
1 - 2 miles	41644
2 - 3 miles	57393
3 - 4 miles	65587

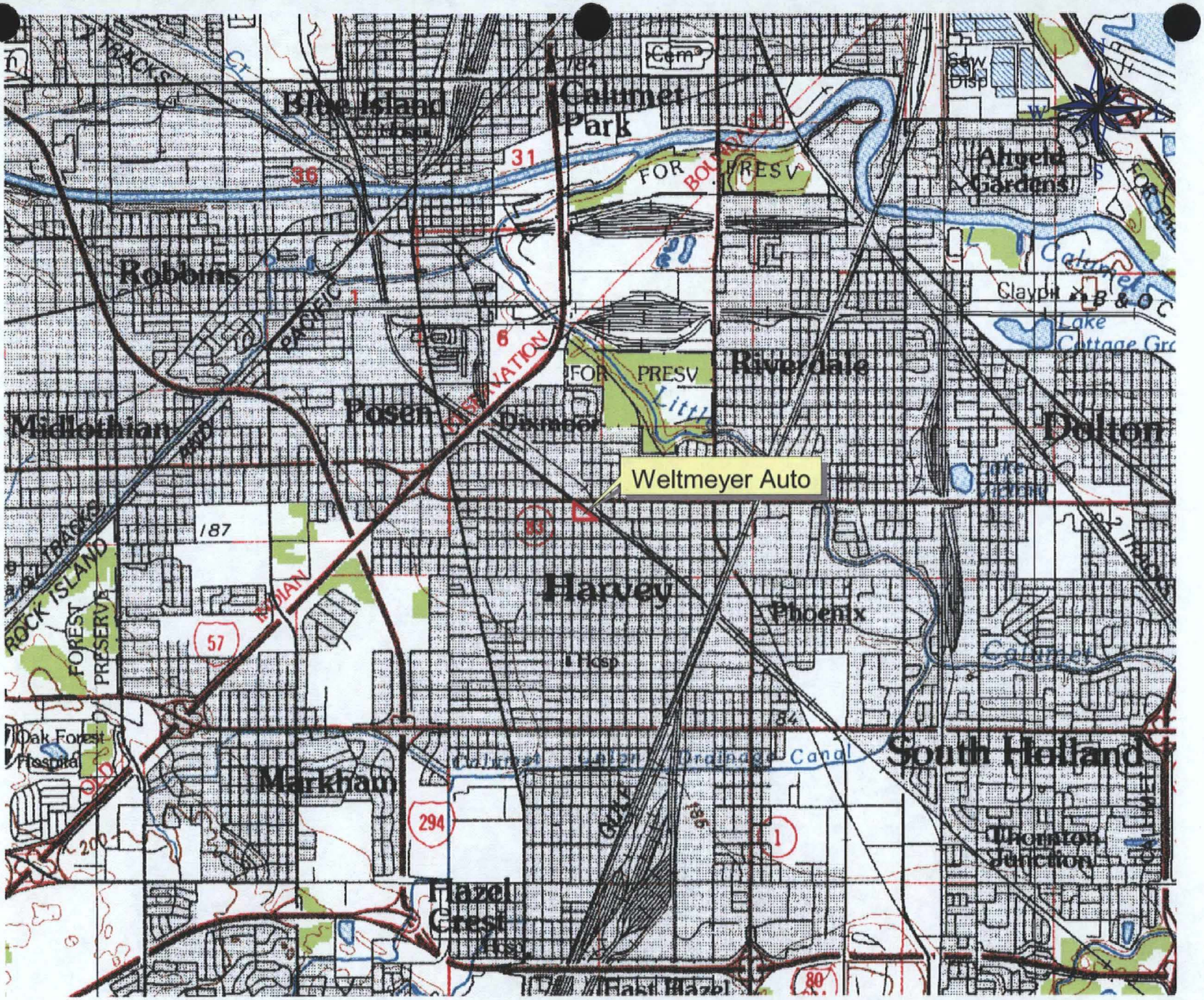
The population was calculated using USGS topographic maps for the area surrounding the facility and 2.97 people per household in Lake County, as established by the U.S. Census Bureau (1990)

FIGURES



SITE LOCATION MAP

Figure 1



WELTMEYER AUTO TOPOGRAPHIC MAP

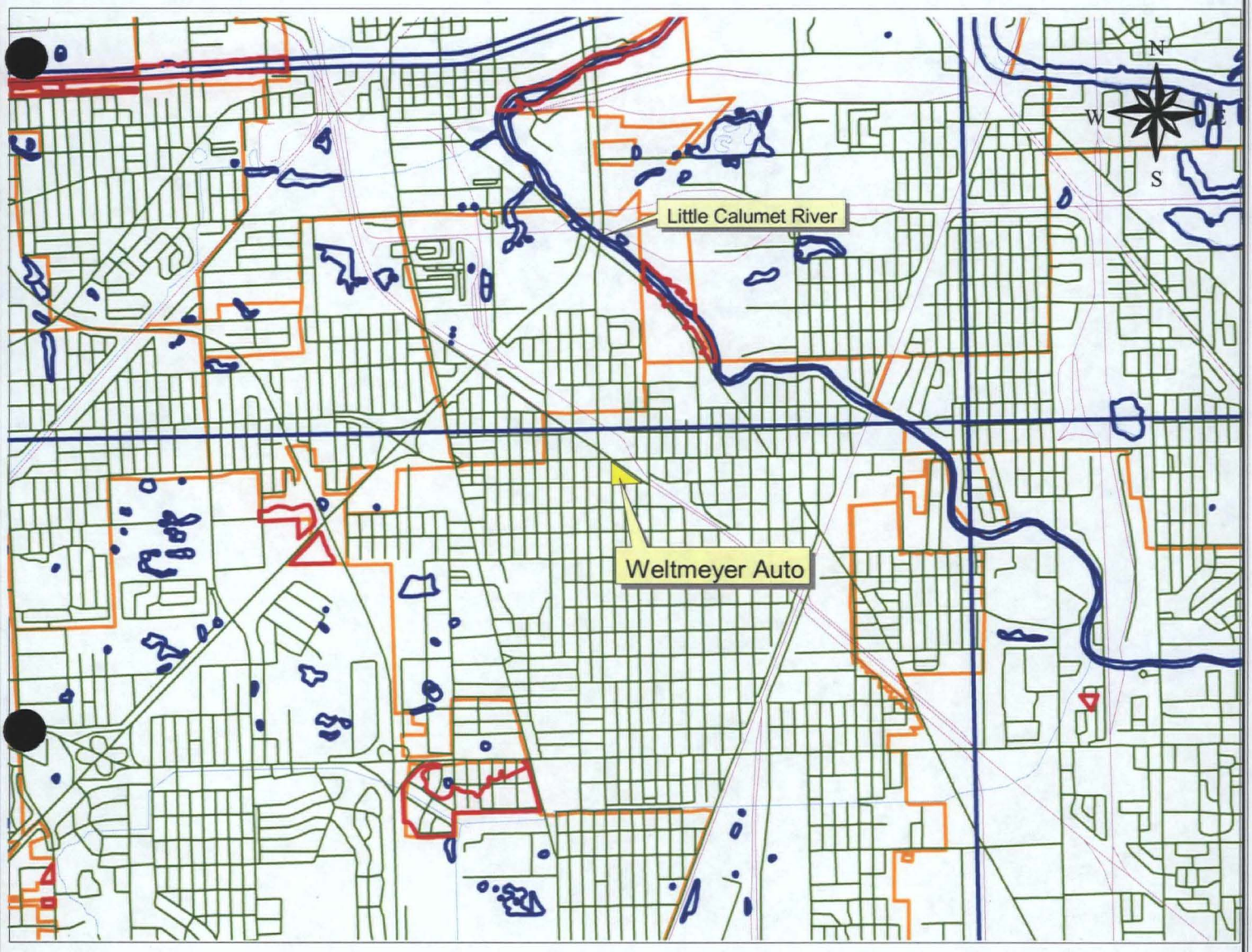
Figure 2

WELTMEYER AUTO SITE AREA MAP

Figure 3

WELTMEYER AUTO SITE FEATURES MAP

Figure 4

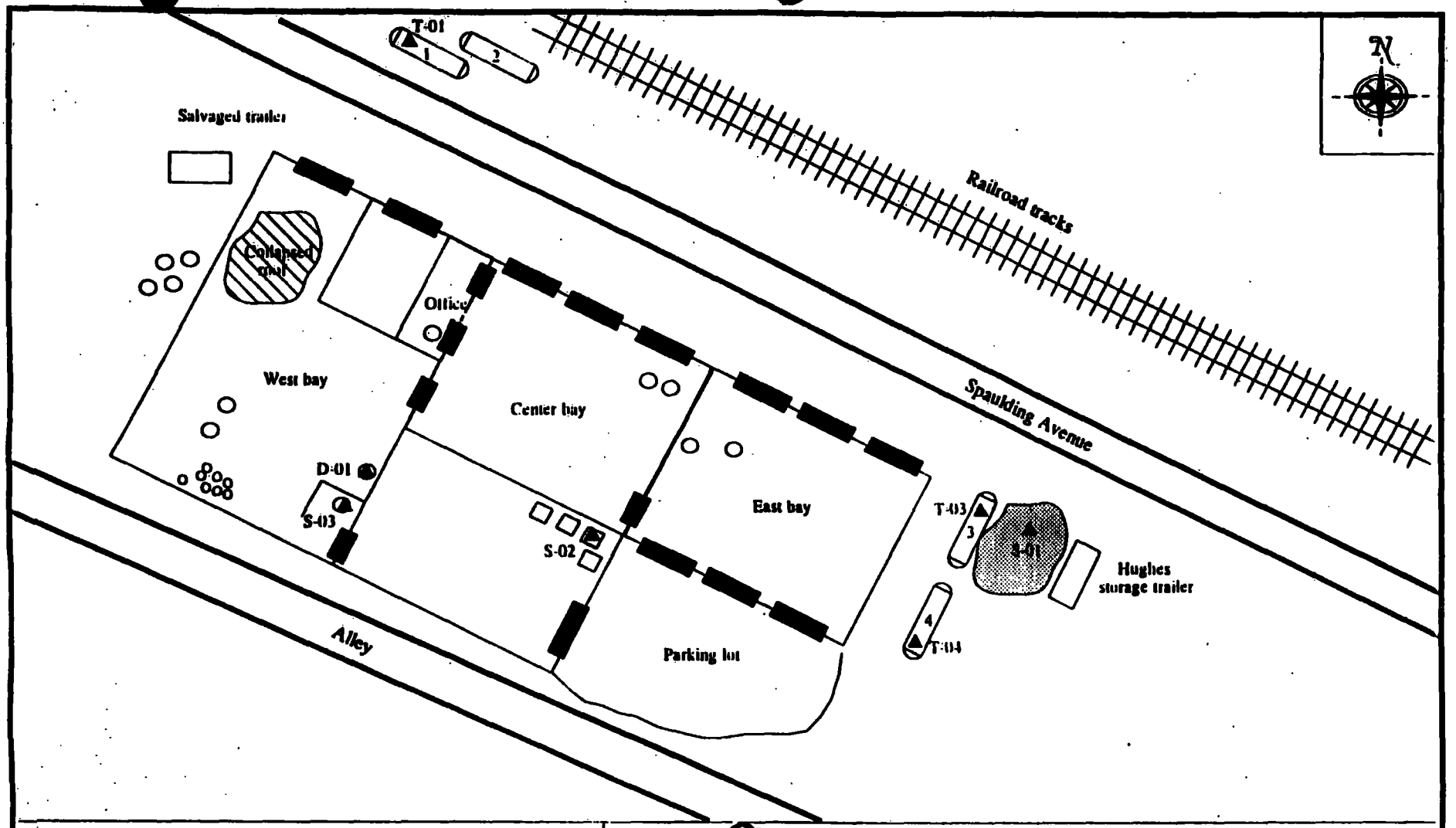


Weltmeyer Auto
Harvey, Illinois

WETLAND LOCATION MAP

Figure 5

Floodzones
Wetlands
Streams
Roads
Rails
Municipal Boundary



Legend

- Overhead door
- Door
- Drum
- Small container
- Acid spill area
- Tanker
- Bulklift bag
- Sample location

ecology and environment, inc.
Region 5 - Superfund Technical Assessment and Response Team
33 North Dearborn, Suite 900, Chicago, Illinois 60602

TITLE	Sample Location Map	FIGURE	6
SITE	Weltmeyer Acid Spill	SCALE	Not to Scale
CITY	Harvey	STATE Illinois	TDD S05-9710-010
SOURCE	Ecology and Environment, Inc.	DATE	2/4/98

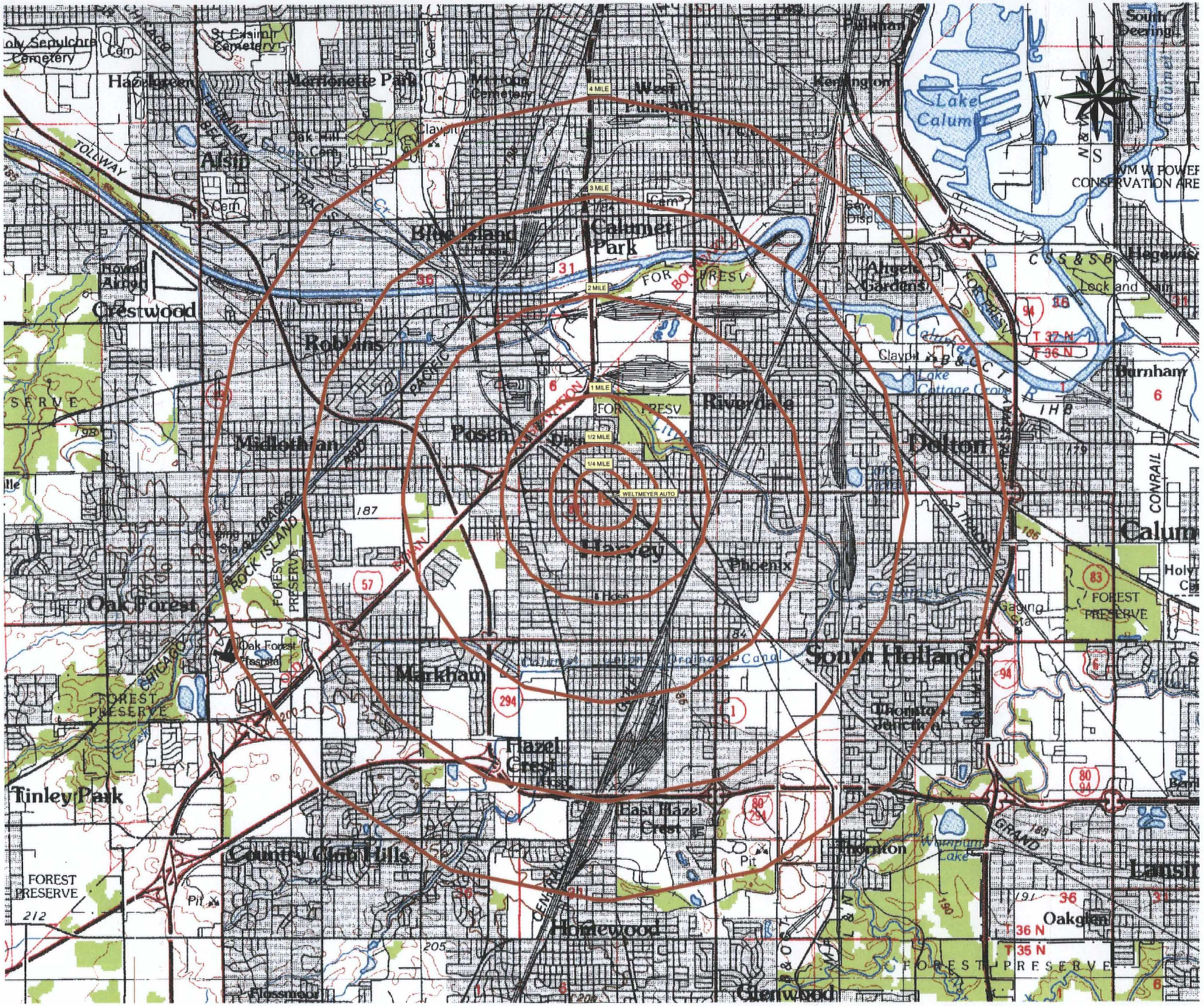
APPENDICES

Appendix A

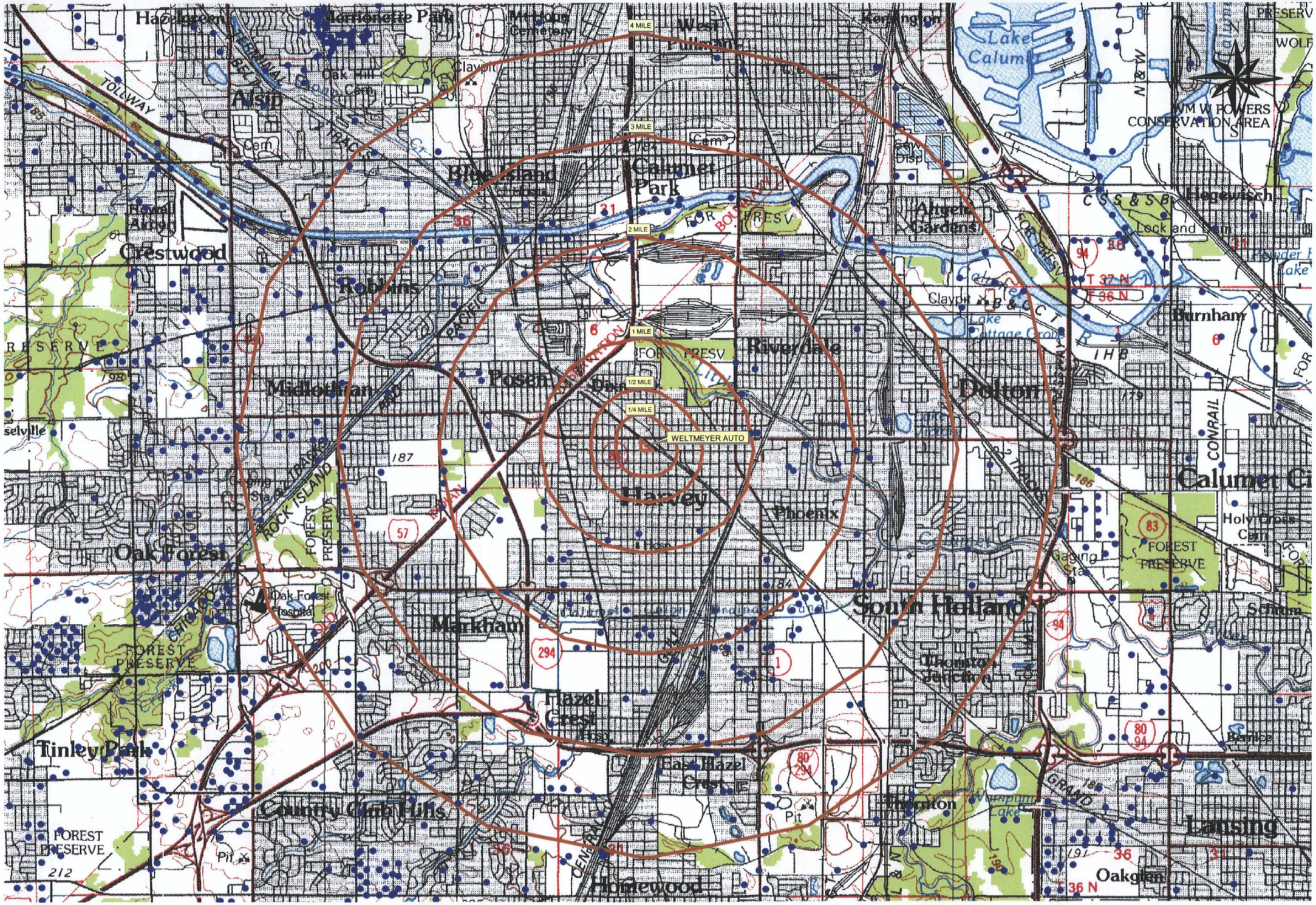
4-Mile Radius Map

&

Community, Non-Community, Private and Other Water Wells



Weltmeyer Auto
4 - Mile Radius Map



Weltmeyer Auto
Community, Non-Community, Private & Other Wells

Appendix B

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether

Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

TARGET ANALYTE LIST

Inorganic Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	

List of PNA's from Target Compound List

Naphthalene

2-Methylnaphthalene

2-Chloronaphthalene

Acenaphthylene

Acenaphthene

Fluorene

Phenanthrene

Anthracene

Fluoranthene

Pyrene

Benzo(a)anthracene

Chrysene

Benzo(b)fluoranthene

Benzo(k)fluoranthene

Benzo(a)pyrene

Indeno(1,2,3-cd)pyrene

Dibenz(a,h)anthracene

Benzo(g,h,i)perylene

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

Appendix C

Preliminary Assessment Equivalent Report (9-10-98)

&

Analytical Results (1997 Removal Action Sampling)

Table of Contents

PRELIMINARY ASSESSMENT EQUIVALENT REPORT
WELTMEYER AUTO SITE
a.k.a. ACID SPILL SITE
HARVEY, COOK COUNTY, ILLINOIS
TDD: S05-9611-013
PAN: 6B134NSIXX
CERCLIS ID: IL0002093144

September 10, 1998

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Site Assessment Section
77 West Jackson Boulevard
Chicago, Illinois 60604

Prepared by: _____ Date: 9/10/98
Jeffrey Hughes, START Member

Reviewed by: _____ Date: 9/10/98
M.J. Ripp, START Assistant Program Manager

Approved by: _____ Date: 9/10/98
for Thomas Kouris, START Program Manager

ecology and environment, inc.
International Specialists in the Environment

33 North Dearborn Street, Chicago, Illinois 60602
Tel. 312/578-9243, Fax: 312/578-9345

1. Introduction

The Ecology and Environment, Inc. (E & E), Superfund Technical Assessment and Response Team (START) has been tasked by the United States Environmental Protection Agency (U.S. EPA) to complete a Preliminary Assessment (PA) Equivalent Report for the Weltmeyer Auto (a.k.a. Acid Spill) site under Technical Direction Document (TDD) S05-9611-013. The PA Equivalent Report is based on information and data from the Letter Report prepared by E & E, and information provided by personnel involved with the emergency response and removal actions at the site. Additional details on the response action, including photodocumentation and validated analytical results, are available in the U.S. EPA Region 5 site file.

2. Site Description

The Weltmeyer Auto site is an inactive truck and automotive repair shop located at 14752 Spaulding Avenue in Harvey, Cook County, Illinois (Appendix A). Geographical coordinates for the site are latitude 41°37'17.6" N, and longitude 87°39'30.4" W. The site is located in a suburban mixed residential and industrial area. The site is bordered to the northeast by Spaulding Avenue and the Grand Trunk Western Railroad, to the south by 148th Street, to the southwest by an alley, and to the north by 147th Street.

The Weltmeyer Auto site consisted of a garage complex, four tankers, and two storage trailers. Prior to the U.S. EPA emergency response action at the site, wastes were stored in tankers and in drums, bags, and small containers inside the garage complex. The site was overgrown with vegetation and in disrepair (Appendix B). The site is unsecured and easily accessible to the public. Unauthorized metal salvaging operations routinely occurred at the site.

There are 3,918 households with approximately 12,429 persons located within a 1-mile radius of the site (Appendix C). There are 10 schools located within a 1-mile radius of the site. The site terrain is flat, with runoff entering city storm sewers on Spaulding Avenue. The nearest surface water to the site is the Little Calumet River, a perennial stream located approximately 0.8 mile northeast of the site (Appendix A). Municipal drinking water in the vicinity of the site is supplied to the City of Harvey by the City of Chicago from intakes located in Lake Michigan (Appendix D).

3. Previous Assessment and Removal Activities

On October 22, 1997, an acid spill from a tanker on the east side of the site was reported to the Illinois Environmental Protection Agency (IEPA). The tanker was apparently being salvaged for its metal content and holes were cut into it to drain the acid. On October 23, 1997, emergency responders from U.S. EPA, IEPA, and START met on site with officials from the Harvey Police and Fire Departments. The acid apparently pooled on the ground, reacted with underlying soil, and flowed downgradient under a neighboring storage trailer (Appendix B).

START conducted air monitoring, and collected three samples from the tankers, one soil sample from the spill area, one sample from a bag of solid material, and two drum samples. Results of air monitoring indicated no levels above background for volatile organic gases, explosive gases, oxygen, carbon monoxide, or hydrogen sulfide (Appendix B). All samples were analyzed for pH and total metals. The three tanker samples (T-01, T-03, T-04) were analyzed and indicated pH levels of 1.65, 1.83, and 1.72 standard units, respectively. These results indicated that the samples were classified as hazardous wastes due to corrosivity under regulations of the Resource Conservation and Recovery Act (RCRA). Analytical results indicated that the liquid in the tankers, the soil in the spill area, the contents of the bag of material, and one of the drums (labelled D-01) were acids. The contents of the remaining drum (labelled S-03) was considered ignitable under RCRA regulations. Two 55-gallon drums of paint were stored outside of the garage building.

Due to the threat to human health and the environment posed by the waste materials contained in the tankers and stored inside the garage, U.S. EPA determined that a removal action at the site was warranted. On October 24, 1997, the U.S. EPA's Emergency Response Cleanup Services (ERCS) contractor mobilized for a removal action at the site. U.S. EPA On-Scene Coordinator Fred Bartman and START assisted with the removal action. Approximately 10 cubic yards (yd^3) of soil, excavated to a depth of 4 inches below ground surface (bgs), were removed from the spill area (Appendix B). Approximately 12,000 gallons of liquid acid and 3,300 gallons of acid sludge were removed from the

tankers and transported off site for treatment and disposal. The tankers were then cut into 6- by 8-foot pieces, placed into three 20-yd^3 rolloff boxes, and removed from the site. All other RCRA hazardous wastes and their containers were removed from the site. The bags of solid materials inside the garage complex, determined to be sulfamic acid, were placed into four 1-yd^3 boxes for off-site disposal. The sampled drums from the garage complex were placed into overpacks, along with two labpacks of smaller containers, and removed for off-site disposal. All U.S. EPA site work was completed on November 17, 1997. No further U.S. EPA Removal Section action is planned at the site.

4. Migration and Exposure Pathway Factors and Targets

This section describes the four migration and exposure pathways and targets associated with the Weltmeyer Auto site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

4.1 Groundwater Migration Pathway

Any potential source of groundwater contamination at the site has been removed. Groundwater is not used for drinking in the site vicinity, and groundwater samples were not collected during the U.S. EPA emergency response actions at the site.

4.2 Surface Water Migration Pathway

Runoff from the site drains to city storm sewers. The nearest surface water body to the site is the Little Calumet River, located approximately 0.8 mile northeast of the site. There is no evidence of surface water contamination attributable to the Weltmeyer Auto site. Drinking water in the site vicinity is supplied by the City of Chicago's municipal water system from intakes located in Lake Michigan.

4.3 Soil Exposure Pathway

All RCRA hazardous wastes that spilled on the ground and were stored on site have been removed. Soil in the area of the acid spill was excavated from an area approximately 30 feet in diameter and to a depth of 4 inches bgs (Appendix B). U.S. Census data indicates that 12,249 persons reside within a 1-mile radius of the site, and 41,451 persons reside within a 2-mile radius of the site (Appendix C). Access to the site is not restricted, and trespassing and illegal salvaging was a routine occurrence.

4.4 Air Migration Pathway

Results of air monitoring at the site, conducted during the emergency response, indicated no levels above background for volatile organic gases, explosive gases, oxygen, carbon monoxide, or hydrogen sulfide (Appendix B). All contaminants with the potential to become airborne have been removed from the site.

5. Summary

The Weltmeyer Auto site is an inactive truck and automotive repair shop located in Harvey, Cook County, Illinois. On October 22, 1997, an acid spill from a tanker on the east side of the site was reported to IEPA. On October 23, 1997, emergency responders from U.S. EPA, IEPA, and START met on site with officials from the Harvey Police and Fire Departments. The acid apparently pooled on the ground, reacted with underlying soil, and flowed downgradient under a neighboring storage trailer (Appendix B). START conducted air monitoring and collected seven samples during the emergency response.

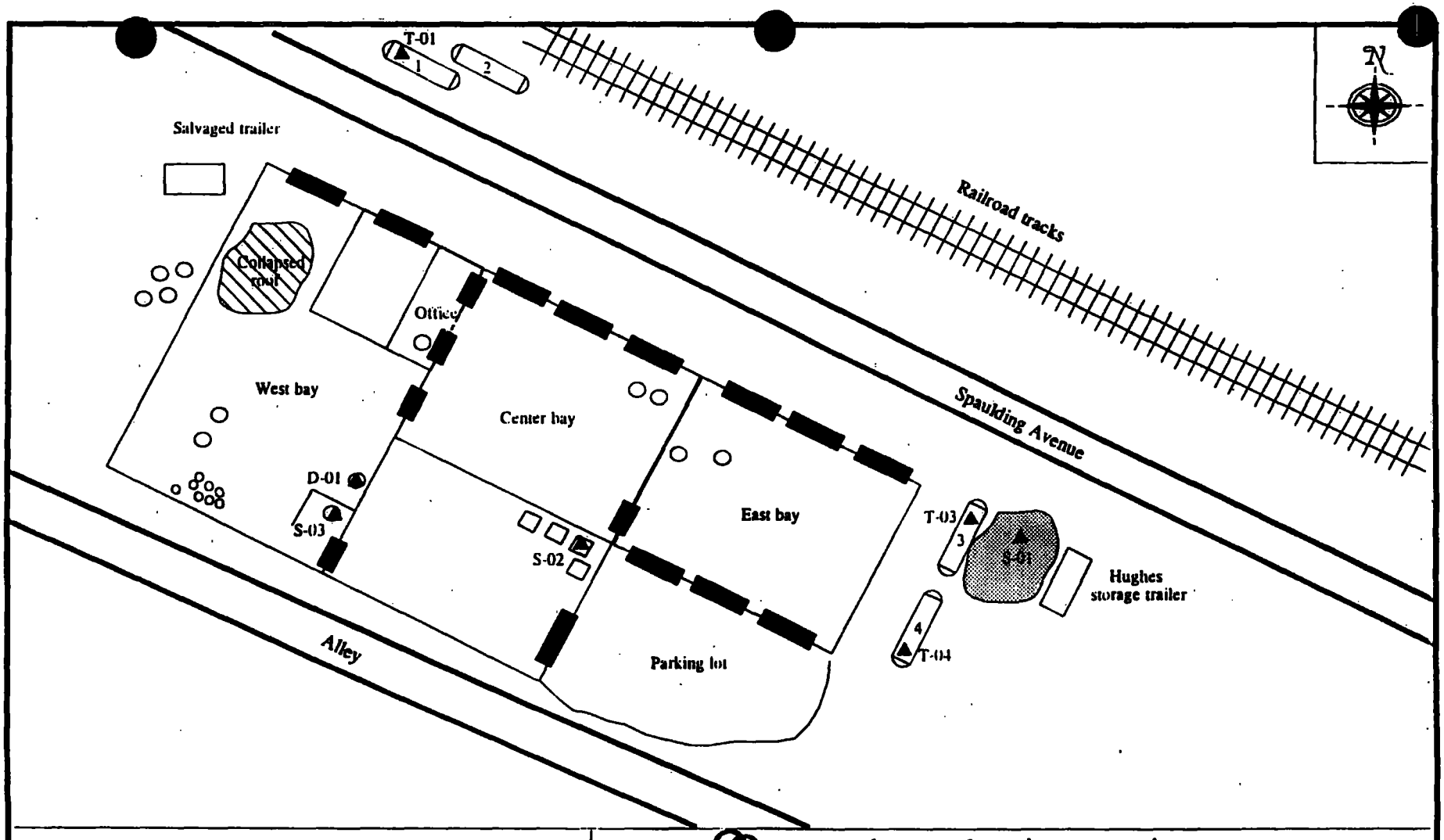
Chemical analysis of the samples collected during the emergency response, led U.S. EPA to determine that the site posed an immediate threat to human health and the environment, and that a removal action was warranted. On October 24, 1997, an ERCS contractor began a removal action at the site. RCRA hazardous wastes and their containers, along with contaminated soil, were removed from the site. The acid tankers were cut into 6- by 8-foot pieces, placed into three 20-yd^3 rolloff boxes, and removed from the site for disposal. The removal action was completed on November 17, 1997, and no further U.S. EPA Removal Section action is planned at this time.

Appendix A

Site Location Map

Source: Ecology and Environment, Inc., February 4, 1998, *Letter Report for Acid Spill Site,* Harvey, Cook County, Illinois.

Map redacted due to geological
and geophysical information



Legend

Overhead door	Door
Drum	Small container
Acid spill area	Tanker
Bulklift bag	Sample location

ecology and environment, inc.
Region 5 - Superfund Technical Assessment and Response Team
33 North Dearborn, Suite 900, Chicago, Illinois 60602

TITLE	Sample Location Map	FIGURE	3
SITE	Weltmeyer Acid Spill	SCALE	Not to Scale
CITY	Harvey	STATE Illinois	TDD S05-9710-010
SOURCE	Ecology and Environment, Inc.	DATE	2/4/98

ecology and environment, inc.
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Chicago, Illinois 60602
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M E M O R A N D U M

DATE: November 21, 1997

TO: Steve Skare, START Project Manager, E & E, Chicago, Illinois

FROM: David Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

THROUGH: Mary Jane Ripp, START Assistant Program Manager, E & E, Chicago, Illinois

SUBJECT: Inorganic Data Quality Review for Resource Conservation and Recovery Act (RCRA) Metals, Acid Spill, Harvey, Cook County, Illinois

REFERENCE: Project TDD S05-9710-010 Analytical TDD S05-9710-807
Project PAN 7C1001SIXX Analytical PAN 7CAG01TAXX

The data quality assurance (QA) review of five drum/tanker samples and two soil samples collected from the Acid Spill site is complete. The samples were collected on October 23, 1997, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to NET Laboratories, Bartlett, Illinois. The laboratory analyses were performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste 846 Methods 6010 and 7000.

Sample Identification

START Identification No.	Laboratory Identification No.
T-01	440284
T-03	440385
T-04	440286
S-01	440287
S-02	440288
S-03	440289
D-01	440290

Data Qualifications:

I. Sample Holding Time: Acceptable

The samples were collected on October 23, 1997, and analyzed on October 30 and 31, 1997. Analysis for mercury was performed on October 30, 1997. This is within the 6-month (28 days for mercury) holding time limit.

II. Calibration:

- Initial Calibration: Acceptable

Recoveries for the initial calibration verification were within 90 to 110% (80 to 120% for mercury), as required. The correlation coefficient for mercury exceeded 0.995.

- Continuing Calibration: Acceptable

All analytes included in the continuing calibration verification standard were within 90 to 110% (80 to 120% for mercury), as required.

III. Blanks: Acceptable

Calibration and preparation blanks were analyzed with each analytical batch. No target analytes were detected in the blanks.

IV. Overall Assessment of Data For Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II as outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990) Data Validation Procedures, Section 3.0, Metallic Inorganic Parameters. Based upon the information provided, the data are acceptable for use.

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M E M O R A N D U M

DATE: November 21, 1997

TO: Steve Skare, START Project Manager, E & E, Chicago, Illinois

FROM: David Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

THROUGH: Mary Jane Ripp, START Assistant Program Manager, E & E, Chicago, Illinois

SUBJECT: Organic Data Quality Review for Volatile Organic Compounds (VOCs), Acid Spill, Harvey, Cook County, Illinois

REFERENCE: Project TDD S05-9710-010 Analytical TDD S05-9710-807
Project PAN 7C1001SIXX Analytical PAN 7CAG01TAXX

The data quality assurance (QA) review of one drum sample collected from the Acid Spill site is complete. The sample was collected on October 23, 1997, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The sample was submitted to NET Laboratories, Bartlett, Illinois. The laboratory analysis was performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste 846 Method 8260.

Sample Identification

START Identification No.	Laboratory Identification No.
D-01	440290

Data Qualifications:

I. Sample Holding Time: Acceptable

The samples were collected on October 23, 1997, and analyzed on October 27, 1997. This is within the 14-day holding time limit.

II. Gas Chromatography/Mass Spectrometry (GC/MS) Tuning: Acceptable

GC/MS tuning to meet ion abundance criteria using bromofluorobenzene (BFB) were acceptable and sample was analyzed within 12 hours of BFB tuning.

III. Calibrations:

• Initial Calibration: Qualified

A five-point initial calibration was performed prior to analysis. All average response factors were greater than 0.05 except methyl ethyl ketone; therefore, the nondetect value for this compound has been flagged "R", as required. The percent relative standard deviations (%RSDs) between response factors were less than 30% for all detected target compounds.

• Continuing Calibration: Acceptable

The percent differences of the response factors were less than 25%, as required for detected target compounds.

IV. Blank: Acceptable

A method blank was analyzed with the sample. No target compounds or contaminants were detected in the blank.

V. Internal Standards: Acceptable

The areas of the internal standards in the sample were within -50% to +100% of the associated calibration check standard. The retention times of the internal standards were within the 30-second control limit.

VI. Compound Identification: Acceptable

The mass spectra and retention times of the detected compounds matched those of the standards.

VII. Additional QC Checks: Acceptable

The recoveries of the surrogates used in the sample and blank were within laboratory-established guidelines.

VIII. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II as outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 5.0, VOAs By GC/MS analysis. Based upon the information provided, the data are acceptable for use, with the above-stated qualifications.

Data Qualifiers and Definitions:

R - The sample results are rejected (analyte may or may not be present) due to gross deficiencies in quality control criteria. Any reported value is unusable. Resampling and/or reanalysis is necessary for verification.

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M E M O R A N D U M

DATE: November 21, 1997

TO: Steve Skare, START Project Manager, E & E, Chicago, Illinois

FROM: David Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

THROUGH: Mary Jane Ripp, START Assistant Program Manager, E & E, Chicago, Illinois

SUBJECT: Data Quality Review for Flash Point and pH, Acid Spill, Harvey, Cook County, Illinois

REFERENCE: Project TDD S05-9710-010 Analytical TDD S05-9710-807
Project PAN 7C1001SIXX Analytical PAN 7CAG01TAXX

The data quality assurance (QA) review of five tanker/drum samples and two soil samples collected from the Acid Spill site is complete. The samples were collected on October 23, 1997, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to NET Laboratories, Bartlett, Illinois. The laboratory analyses were performed according to the United States Environmental Protection Agency (U.S. EPA) Solid Waste 846 Methods 1010 and 9045. (Analysis of flash point was performed only on D-01.)

Sample Identification

START Identification No.	Laboratory Identification No.
T-01	440384
T-03	440385
T-04	440286
S-01	440287
S-02	440288
S-03	440289
D-01	440290

Data Qualifications:

I. Sample Holding Time: Acceptable

The samples were collected on October 23, 1997, and analyzed on October 29, 1997. The Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990) does not specify holding times for these parameters.

II. Calibrations: Acceptable

The calibrations for flash point and pH were verified before sample analyses. The calibration for flash point was verified using xylene and the calibration for pH was verified following analyses of three standard solutions.

III. Overall Assessment of Data for Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II as outlined in OSWER Data Validation Procedures, Section 9.0, Generic Data Validation Procedures. Based upon the information provided, the data are acceptable for use.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440284

NET Job No.: 97.12764

Sample Description: Tanker #1; T-01
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 12:15
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results		Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	1.65		units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	<0.50		ug/g	10/31/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	<1.0		ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
[illegible]um, ICP	3.8		ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
C[illegible]mium, ICP	21		ug/g	10/30/1997	2.0	jtt	875	1538	6010 (1)
Lead, ICP	<4.0		ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	<0.040		ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	<0.25		ug/g	10/31/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0	MX	ug/g	10/31/1997	2.0	sep	363	465	7760 (1)

MX : Dilution required due to sample matrix; analyte is not detected.

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ANALYTICAL REPORT

n
ONMENT, INC

02

11/01/1997

Sample No. : 440285

NET Job No.: 97.12764

ion: Tanker #3; T-03
Analytical; S05-9710-807

/23/1997
:40
100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Results		Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
1.83		units	10/29/1997	0.10	ttl		26	9045B (1)
<0.5		ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
<1.		ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
3.8		ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
13		ug/g	10/30/1997	2.0	jtt	875	1538	6010 (1)
8.8		ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
<0.040		ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
<0.25		ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
<2.0	MX	ug/g	10/30/1997	2.0	sep	363	464	7760 (1)

mple matrix; analyte is not detected.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440286

NET Job No.: 97.12764

Sample Description: Tanker #4; T-04
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 12:50
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results		Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	1.72		units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	<0.50		ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	<1.0		ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
Ca[illegible]m, ICP	6.6		ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
Chr[illegible]ium, ICP	19		ug/g	10/30/1997	2.0	jtt	875	1538	6010 (1)
Lead, ICP	<4.0		ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	<0.040		ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	<0.25		ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0	MX	ug/g	10/30/1997	2.0	sep	363	464	7760 (1)

MX : Dilution required due to sample matrix; analyte is not detected.

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440287

NET Job No.: 97.12764

Sample Description: Soil East of Tanker #3; S-01
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 13:15
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results		Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	3.96		units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	4.6	M+	ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	68		ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
Cadmium, ICP	3.4		ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
Chromium, ICP	28		ug/g	10/30/1997	2.0	jtt	875	1538	6010 (1)
Lead, ICP	64		ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	0.054		ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	0.65	M+	ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0		ug/g	10/30/1997	2.0	sep	363	464	7760 (1)

M+ : Analyte quantified by MSA due to low spike recovery.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440288

NET Job No.: 97.12764

Sample Description: Bag Inside E. Garage; S-02
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 13:25
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	2.99	units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	<0.50	ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	1.7	ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
Cadmium, ICP	8.1	ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
Chromium, ICP	<2.0	ug/g	10/31/1997	2.0	kdw	875	1539	6010 (1)
Lead, ICP	48	ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	<0.040	ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	<0.25	ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0	ug/g	10/30/1997	2.0	sep	363	464	7760 (1)

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440289

NET Job No.: 97.12764

Sample Description: Drum Inside W. Garage; S-03
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 13:50
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	2.25	units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	<0.50	ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	5.2	ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
Cadmium, ICP	0.56	ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
Chromium, ICP	3.4	ug/g	10/31/1997	2.0	kdw	875	1539	6010 (1)
Lead, ICP	20	ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	<0.040	ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	<0.25	ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0	ug/g	10/30/1997	2.0	sep	363	464	7760 (1)

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440290

NET Job No.: 97.12764

Sample Description: Drum Inside W. Garage; D-01
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 14:10
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results		Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
pH, Non-Aqueous	5.22		units	10/29/1997	0.10	ttl		26	9045B (1)
Arsenic, GFAA	<0.50		ug/g	10/30/1997	0.50	mhp	62	413	7060 (1)
Barium, ICP	<1.0		ug/g	10/30/1997	1.0	jtt	875	1571	6010 (1)
[illegible]um, ICP	<0.50		ug/g	10/30/1997	0.50	jtt	875	1556	6010 (1)
[illegible]ium, ICP	<2.0		ug/g	10/30/1997	2.0	jtt	875	1538	6010 (1)
Lead, ICP	<4.0		ug/g	10/30/1997	4.0	jtt	875	1764	6010 (1)
Mercury, CVAA	<0.040		ug/g	10/30/1997	0.040	sep	547	657	7471A (9)
Selenium, GFAA	<0.25		ug/g	10/30/1997	0.25	mhp	62	348	7740 (1)
Silver, AA	<2.0	MX	ug/g	10/30/1997	2.0	sep	363	464	7760 (1)
VOLATILES - 8260 NonAqueous									
Acetone	<23,000		ug/Kg	10/27/1997	100	llj		258	8260A (9)
Acrylonitrile	<12,000		ug/Kg	10/27/1997	50	llj		258	8260A (9)
Benzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Bromobenzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Bromochloromethane	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Bromodichloromethane	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Bromoform	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Bromomethane	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
n-Butylbenzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
sec-Butylbenzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
tert-Butylbenzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Carbon tetrachloride	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Chlorobenzene	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Chlorodibromomethane	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Chloroethane	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)
Chloroform	<1,200		ug/Kg	10/27/1997	5.0	llj		258	8260A (9)

VOC analysis performed at a 230x dilution due to sample matrix.

M[illegible]Dilution required due to sample matrix; analyte is not detected.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440290

NET Job No.: 97.12764

Sample Description: Drum Inside W. Garage; D-01
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 14:10
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
Chloromethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
2-[illegible]rotoluene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
4-[illegible]rotoluene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2-Dibromo-3-chloropropane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2-Dibromoethane (EDB)	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Dibromomethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2-Dichlorobenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,3-Dichlorobenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,4-Dichlorobenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Dichlorodifluoromethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1-Dichloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2-Dichloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1-Dichloroethene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
cis-1,2-Dichloroethene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
trans-1,2-Dichloroethene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2-Dichloropropane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,3-Dichloropropane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
2,2-Dichloropropane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1-Dichloropropene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
cis-1,3-Dichloropropene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
trans-1,3-Dichloropropene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Ethylbenzene	1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
2-Hexanone	<23,000	ug/Kg	10/27/1997	100	llj	258	8260A (9)
Hexachlorobutadiene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Iodomethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Isopropylbenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
p-Isopropyltoluene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)

VOC analysis performed at a 230x dilution due to sample matrix.

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ANALYTICAL REPORT

Mr. Dave Hendren
ECOLOGY & ENVIRONMENT, INC
33 N. Dearborn
Suite 900
Chicago, IL 60602

11/01/1997

Sample No. : 440290

NET Job No.: 97.12764

Sample Description: Drum Inside W. Garage; D-01
Analytical; S05-9710-807

Date Taken: 10/23/1997
Time Taken: 14:10
IEPA Cert. No. 100221

Date Received: 10/24/1997
Time Received: 15:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
Methyl Ethyl Ketone	<23,000 K	ug/Kg	10/27/1997	100	llj	258	8260A (9)
Methyl Isobutyl Ketone	<23,000	ug/Kg	10/27/1997	100	llj	258	8260A (9)
Methylene Chloride	<12,000	ug/Kg	10/27/1997	50	llj	258	8260A (9)
[redacted]-tert-butyl ether	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Naphthalene	110,000	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
n-propylbenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Styrene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1,1,2-Tetrachloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1,2,2-Tetrachloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Tetrachloroethene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Toluene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2,3-Trichlorobenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2,4-Trichlorobenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1,1-Trichloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,1,2-Trichloroethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Trichloroethene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Trichlofluoromethane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2,3-Trichloropropane	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,2,4-Trimethylbenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
1,3,5-Trimethylbenzene	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Vinyl chloride	<1,200	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Xylenes	7,000	ug/Kg	10/27/1997	5.0	llj	258	8260A (9)
Surr: Dibromofluoromethane	104.6	%	10/27/1997	80-120	llj	258	8260A (9)
Surr: Toluene-d8	86.2	%	10/27/1997	81-117	llj	258	8260A (9)
Surr: 4-Bromofluorobenzene	98.6	%	10/27/1997	74-121	llj	258	8260A (9)
Ignitability (Flash Point)	>212	deg F	10/29/1997	>212	jrs	659	1010 (1)

VOC analysis performed at a 230x dilution due to sample matrix.

Attachment D

Waste Disposal Table

Table 1

WASTE DISPOSAL TABLE
ACID SPILL SITE
a.k.a. WELTMEYER ACID SPILL SITE
HARVEY, COOK COUNTY, ILLINOIS

Wastestream	Medium	Quantity	Treatment	Disposal
Hazardous waste liquid	Acid from tankers	12,000 gallons	Neutralization	Heritage Environmental, Indianapolis, Indiana
Nonhazardous waste solid	Drums of grease	55 gallons	NA	Heritage Environmental, Lemont, Illinois
Hazardous waste liquid	Drums of paint	110 gallons	NA	Heritage Environmental, Lemont, Illinois
Hazardous waste liquid/solid	Aerosols and small containers	2 lab packs	NA	Heritage Environmental, Lemont, Illinois
Nonhazardous waste solid	Soil	10 cubic yards	Landfill	Heritage Environmental, Indianapolis, Indiana
Hazardous waste Solid	Bags of sulfamic acid	4 cubic yards	NA	Heritage Environmental, Lemont, Illinois
Hazardous waste solid	Metal from tankers	60 cubic yards	Landfill	NA

Key:
NA = No information available.

Source: Ecology and Environment, Inc., 1998.